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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,634	11/21/2003	Siamak Naghian	60091.00251	9140

32294 7590 10/31/2007

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EXAMINER	
LE, DANH C	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
10/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/717,634	NAGHIAN ET AL.	
	Examiner	Art Unit	
	DANH C. LE	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/8/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-9,11-17,21,22,24-30,32-35 and 37-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-9,13-17,22,26-30,32-35 and 39-47* is/are rejected.

7)☒ Claim(s) *8,11,12,21,24,25,34,37 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 42-47are rejected under 35 U.S.C. 103(a) as being unpatentable over Amirijoo (US 6,728,217) in view of Hunte (US 6,665,538).**

As to claim 42, Amirijoo teaches a mobile station for use in a cellular communication system comprising cells (figures 3A, 3B and their description), the mobile station being configured to:

collect bit rate information related to the mobile station by measuring (step 302), when the mobile station has a connection to at least a first cell, a bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by a second cell; and

use the bit rate information to decide on when handover of the mobile station from a first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(steps 310-332).

Amirijoo fails teach the data rate information is a transfer rate with which data is transmitted. Hunte teaches the data rate information is a transfer rate with which data is

transmitted (figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Santhoff into the system of Amirijoo in order to determine cell border between first and second cells in the communication system.

As to claim 43, the claim is a method claim of claim 42; therefore the claim is interpreted and rejected as set forth as claim 42.

As to claim 44, Amirijoo teaches a cellular communication (figure 2 and its description) system comprising:

Cells (22a, 22b); and

mobile wherein the system (23) is configured to collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell; and

use the bit rate information for deciding on mobile station handover from the first cell to the second cell such that the system is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(figure 2, steps 310-332).

Amirijoo fails teach the data rate information is a transfer rate with which data is transmitted. Hunte teaches the data rate information is a transfer rate with which data is transmitted (figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Santhoff into the

system of Amirijoo in order to determine cell border between first and second cells in the communication system.

As to claim 45, the claim is a system claim of claim 42; therefore, the claim is interpreted and rejected as set forth as claim 42.

As to claim 46, Amirijoo teaches a mobile station for use in a cellular communication system (figures 2, 3 and their descriptions) comprising cells (22a, 22b), the mobile station (20) being configured to collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station a first cell and/or a bit rate provided to the mobile station by a second cell (col.4, lines 19-42); and

use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the mobile station is con-figured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(figure 3a, steps 310-332).

Amirijoo fails teach the data rate information is a transfer rate with which data is transmitted. Hunte teaches the data rate information is a transfer rate with which data is transmitted (figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Santhoff into the system of Amirijoo in order to determine cell border between first and second cells in the communication system.

As to claim 47, the claim is a mean plus function claim of claim 46; therefore, the claim is interpreted and rejected as set forth as claim 46.

2. **Claims 1-4, 6, 7, 9, 13-17, 19, 20, 22, 26-30, 32, 33, 35, 39-41are rejected under 35 U.S.C. 103(a) as being unpatentable over Amirijoo in view of Hunte and Santhoff (US 6,907244).**

As to claim 1, Amirijoo teaches a method for deciding on handover in a cellular communication system (figures 3A, 3B and their descriptions) comprising:

collecting bit rate information related to a mobile station (steps 300-308), wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station, the collecting comprising measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and

using the bit rate information for deciding on when handover of the mobile station from the first cell to a-the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(steps 310-332).

Amirijoo fails to teach when the mobile station is moving from a first cell to a second cell and the data rate information is a transfer rate with which data is transmitted. Hunte teaches the data rate information is a transfer rate with which data is transmitted (figure 2). Santhoff teaches when the mobile station is moving from a first cell to a second cell (col.6, lines 17-25). Hunte teaches the data rate information is a transfer rate with which data is transmitted (figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide

the teaching of Santhoff into the system of Amirijoo in order to hands-offs between cell sites in a ultra-wideband communication system.

As to claim 2, Amirijoo teaches the method of claim 1, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one other cell, a bit rate requested by the mobile station (figure 3a, 318, 320).

As to claim 3, Amirijoo teaches the method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on whether handover should be carried out (step 312, 315, 332).

As to claim 4, Amirijoo teaches the method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on to which cell handover of the mobile station should be made (step 312, 315, 332).

As to claim 6, Amirijoo teaches the method of claim 1, wherein information about traffic distribution in the system is utilized when deciding on handover of the mobile station (step 312, 315, 332).

As to claim 7, Amirijoo teaches the method of claim 1, wherein information about capacity provided by the system in different parts of the system is utilized when deciding on handover of the mobile station (step 312, 315, 332).

As to claim 9, Amirijoo teaches the method of claim 3, further comprising defining a handover profile which defines preferable cell(s) for each bit rate, whereby the handover profile is used when deciding on handover of the mobile station (step 320).

As to claim 13, Amirijoo teaches the method of claim 1, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system (col 3, lines 7-23).

As to claim 14, the claim is the system claim of claim 1; therefore, the claim is interpreted and rejected as set forth as claim 1.

As to claim 15, the claim is the system claim of claim 2; therefore, the claim is interpreted and rejected as set forth as claim 2.

As to claim 16, the claim is the system claim of claim 3; therefore, the claim is interpreted and rejected as set forth as claim 3.

As to claim 17, the claim is the system claim of claim 4; therefore, the claim is interpreted and rejected as set forth as claim 4.

As to claim 19, the claim is the system claim of claim 6; therefore, the claim is interpreted and rejected as set forth as claim 6.

As to claim 20, the claim is the system claim of claim 7; therefore, the claim is interpreted and rejected as set forth as claim 7.

As to claim 22, the claim is the system claim of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

As to claim 26, the claim is the system claim of claim 13; therefore, the claim is interpreted and rejected as set forth as claim 13.

As to claim 27, the limitation of claim is the same limitation of claim of claim 1; therefore, the claim is interpreted and rejected as set forth as claim 1.

As to claim 28, the limitation of claim is the same limitation of claim of claim 2; therefore, the claim is interpreted and rejected as set forth as claim 2.

As to claim 29, the limitation of claim is the same limitation of claim of claim 3; therefore, the claim is interpreted and rejected as set forth as claim 3.

As to claim 30, the limitation of claim is the same limitation of claim of claim 4; therefore, the claim is interpreted and rejected as set forth as claim 4.

As to claim 32, the limitation of claim is the same limitation of claim of claim 6; therefore, the claim is interpreted and rejected as set forth as claim 6.

As to claim 33, the limitation of claim is the same limitation of claim of claim 7; therefore, the claim is interpreted and rejected as set forth as claim 7.

As to claim 35, the limitation of claim is the same limitation of claim of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

As to claim 39, Amirijoo teaches the system element of claim 27, wherein the system element is a radio network controller (figure 2, 23).

As to claim 40, Amirijoo teaches the system element of claim 27, wherein the system element is the mobile station (figure 1, 20).

As to claim 41, the limitation of claim is the same limitation of claim of claim 13; therefore, the claim is interpreted and rejected as set forth as claim 13.

Allowable Subject Matter

Claims 11, 12, 24, 25, 37, 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 11, 12, 24, 25, 37, 38, the teaching of above prior arts either alone or combine fails to teach further comprising the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

Claims 8, 21, 34, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

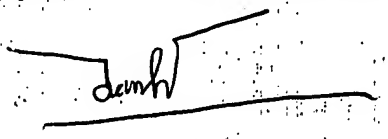
As to claims 8, 21, 34, the teaching of above prior arts either alone or in combination fails to teach further comprising defining sub-areas within the coverage area of the system, and defining preferable bit rates for each sub-area, whereby so defined sub-area information is used when deciding on handover of the mobile station.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



October 28, 2007.
DANH LE
PRIMARY EXAMINER